

REMARKS

Claims 1-53 are pending in the present Application. Claim 2 has been canceled, Claims 1, 26, and 37 have been amended, and no claims have been added, leaving Claims 1 and 3-53 for consideration upon entry of the present Amendment. The Specification has been amended to correct certain typographical errors.

Claim 1, 26, and 37 have been amended to recite the limitation "wherein the composition is cold worked." Support for these amendments can at least be found in the claims as originally filed as well as in Paragraph [0059] as originally filed.

Claims 3-7 have been amended to change their dependency to Claim 1.

No new matter has been introduced by these amendments. Reconsideration and allowance of the claims are respectfully requested in view of the above amendments and the following remarks.

Information Disclosure Statement

Applicants note that the Examiner has not considered the art submitted in the Information Disclosure Statement filed February 28, 2006. Applicants respectfully request that the art submitted in this Information Disclosure Statement be considered and a fully initialed PTO Form A820 be returned to the Applicants.

Claim Rejections Under 35 U.S.C. § 103(a)

Claims 1-15, 22-24, 26-28, 32-35, 37-52 stand rejected under 35 U.S.C. § 103(a), as allegedly unpatentable over U.S. Patent No. 6,258,182 to Schetky et al. ("Schetky"). Applicants gratefully acknowledge the Examiner's withdrawal of the § 102(b) rejection over Schetky. (Office Action dated March 13, 2006 at page 5, ¶ 6) Applicants respectfully traverse the instant § 103 rejection.

The Examiner has stated that the alloys of claims 1, 26, and 37 fall within the scope of the limits of Mo, Al, Cr, V, and Nb listed in Table III of Schetky, wherein the examples encompass: 8.4-12% Mo, 2.3-3.7% Al, >1.8% CR, 0-1.8% V, 0-3.8% Nb, and that "[o]verlapping ranges have been held to be a prima facie case of obviousness." (Office Action dated March 13, 2006 at

page 2). The Examiner has stated that Schetky also teaches the process limitations of Claims 2 and 39-45. Concerning Claims 3-7, 48, and 49, the Examiner has stated that “where the claimed and prior art products are identical or substantially identical in structure or composition, or are produced by identical or substantially identical processes, a *prima facie* case of either anticipation or obviousness has been established.” The Examiner has further stated that the “*prima facie* case can be rebutted by evidence showing that the prior art products do not necessarily possess the characteristics of the claimed product.” (Office Action dated March 13, 2006 at page 3)

For an obviousness rejection to be proper, the Examiner must meet the burden of establishing a *prima facie* case of obviousness, i.e., that all elements of the invention are disclosed in the prior art; that the prior art relied upon, coupled with knowledge generally available in the art at the time of the invention, contain some suggestion or incentive that would have motivated the skilled artisan to modify a reference or combined references; and that the proposed modification of the prior art had a reasonable expectation of success, determined from the vantage point of the skilled artisan at the time the invention was made. *In re Fine*, 5 U.S.P.Q.2d 1596, 1598 (Fed. Cir. 1988); *In Re Wilson*, 165 U.S.P.Q. 494, 496 (C.C.P.A. 1970); *Amgen v. Chugai Pharmaceuticals Co.*, 927 U.S.P.Q.2d, 1016, 1023 (Fed. Cir. 1996).

Applicants respectfully submit that there is no motivation for one of ordinary skill in the art to modify Schetky to arrive at the claimed invention. Schetky teaches away from compositions having a molybdenum content of less than 10 wt% because those compositions exhibit inferior elastic properties. Table III discloses alloys #27 and #36 comprising 9.5 wt% and 8.4 wt% Mo, respectively, but these alloys failed to display either pseudo-elastic strain recovery or shape memory strain recovery. Alloy #28, comprising 10 wt% Mo, also failed to display any shape memory effect. On the other hand, alloy # 42, comprising 10.2 wt% Mo, “exhibited the highest pseudo-elastic strain recovery.” (Col. 7, ll. 13-14) One of ordinary skill in the art would recognize that the trend indicated that compositions comprising less than 10 wt% Mo may exhibit progressively decreasing elastic properties. A person of ordinary skill in the art upon reading this disclosure and discovering that compositions having less than 10.0 wt% molybdenum fail to exhibit significant pseudo-elastic strain recovery, would not be motivated to modify Schetky to reduce the amount of molybdenum.

Upon testing alloy # 42, which had the highest pseudo-elastic strain recovery, Schetky further discloses that

It can be seen that pseudo-elastic strain recovery decreases only slightly as a result of increasing amount of cold work, indicating that pseudo-elasticity in this alloy is not significantly affected by cold deformation up to 20%.

(Col. 8, ll. 46-51; Fig. 6) Upon reading Schetky, one of ordinary skill in the art would understand that the alloy with the highest pseudo-elastic strain recovery displayed a slight decrease in pseudo-elastic strain recovery when cold worked. Because Schetky teaches that cold working causes a slight decrease in pseudo-elasticity in the alloy with the highest pseudo-elastic strain recovery, one of ordinary skill in the art would not be motivated to cold work an alloy to increase the elastic properties of the alloy.

Applicants respectfully submit there is no motivation to combine an alloy composition comprising less than 10 wt% Mo, which Schetky teaches has decreased elastic properties, with cold working the alloy, which Schetky teaches results in decreased elastic properties, to provide an alloy with improved elastic properties. In addition, there is no reasonable expectation of success that the combination of two elements that each result in decreased elastic properties will provide improved elastic properties. Because there is no motivation to modify Schetky and no reasonable expectation that the modification will be success, Applicants believe that the Examiner has not made a *prima facie* case of obviousness over Schetky. Applicants respectfully request a withdrawal of the § 103 (a) rejection and an allowance of the claims.

Even if a *prima facie* case of obviousness were conceded, which it is not, it is respectfully submitted that Applicants' invention is not obvious because the particular combination of claimed elements results in unexpectedly beneficial properties. One of ordinary skill in the art would expect that the combination of two elements, which are each expressly disclosed to result in decreased elastic properties, would similarly result in decreased elastic properties. As described above, the present alloys possess unexpectedly improved elastic properties after cold working. ([¶ [0059], [0060], [0109]-[0112]) Accordingly, the unexpectedly improved elastic properties of the presently claimed composition would successfully rebut a *prima facie* case of obviousness, if it existed.

Reconsideration and withdrawal of this rejection are respectfully requested.

Nonstatutory Double Patenting Rejections

Claims 1-53 stand rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over Claims 1-39 of copending Application No. 10/609,003. Claims 1-53 stand rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over Claims 1-49 of copending Application No. 10/755,034. Claims 1-53 stand rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over Claims 15-20, 23, 24 of copending Application No. 10/869,359. Claims 1-53 stand rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over Claims 1-6, 8-55 of copending Application No. 10/755,085.

Applicants thank the Examiner for pointing out the potential obviousness-type double patenting issue between the claims of the present application and those of the above co-pending applications. In view of the possibility that claims in the cited applications or the present application will be further amended before allowance, Applicants will defer responding to this provisional rejection until claims in the reference applications are allowed, claims in the present application are otherwise allowable, and it is determined whether this provisional rejection becomes an actual rejection.

It is believed that the foregoing amendments and remarks fully comply with the Office Action and that the claims herein should now be allowable to Applicants. Accordingly, reconsideration and withdrawal of the objection(s) and rejection(s) and allowance of the case are respectfully requested.

If there are any additional charges with respect to this Amendment or otherwise, please charge them to Deposit Account No. 06-1130.

Respectfully submitted,

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